

REMARKS/ARGUMENTS

In response to the Examiner's final Office Action of January 23, 2007 the Applicant respectfully submits the accompanying Amendment to the claims and the below Remarks.

Regarding Amendments

In the Amendments:

independent claims 1, 19 and 38 are amended to omit recitation of the elongate strip being cantilevered and having a serpentine form, and to specify that the thickness of the strip is less than 0.3 microns. Support for these amendments can be found in pending dependent claim 41;

dependent claim 41 is cancelled accordingly; and

dependent claims 2-6, 8-18, 20-25, 27-37, 39, 40 and 42-54 are unchanged.

It is respectfully submitted that the above amendments do not add new matter to the present application.

Regarding 35 USC 103(a) Rejections

It is respectfully submitted that the subject matter of above-discussed amended independent claims 1, 19 and 38, and claims 2-6, 8-18, 20-25, 27-37, 39, 40 and 42-54 dependent therefrom, is not taught or suggested by any one or more of previously cited Silverbrook, Hiramatsu, Lee, Otsuka, Campbell, Anagnostopoulos and De Moor in view of newly cited Kubby (US 5,851,412), for at least the following reasons.

In the present invention, as recited in amended independent claims 1, 19 and 38, the micro-electromechanical printhead has heater elements 10 which are lithographically formed so as to have a thickness of less than 0.3 microns and a width of at least three times the thickness. By forming such relatively wide and flat heater elements, the etching of the lithographic process is accurately and simply performed, which results in heater elements having better overall operational consistency, resistance and conformity (see page 2, line 16-22 and page 11, lines 7-13 of the present specification).

As recognised by the Examiner, none of Silverbrook, Lee, Otsuka, Campbell, Anagnostopoulos, DeMoor and Kubby teach or suggest heater elements having such a width to thickness relationship in the micron range of a microelectromechanical system. The Examiner however asserts that Hiramatsu discloses an aspect ratio of 10 to 5000 for resistance heating elements and therefore discloses the claimed width to thickness relationship of pending independent claims 1, 19 and 38 and the specific width and thickness values of pending dependent claim 41.

However, Hiramatsu discloses the aspect ratio of 10 to 5000 in context of the disclosed specific practical width and thickness values of the resistance heating elements. These specific practical values are 1 to 30 microns for thickness and 0.1 to 20 millimeters for width (see col. 15, lines 29-65).

Thus, it is clear to one of ordinary skill in the art that the disclosed aspect ratio must be contained within the practical value ranges specifically disclosed by Hiramatsu. Accordingly, the thickness of the resistance heating elements in any combination of Hiramatsu with Silverbrook, Lee, Otsuka, Campbell, Anagnostopoulos, DeMoor and/or Kubby, would not be less than 0.3 microns as required by amended independent claims 1, 19 and 38, nor would the width of the resistance heating elements be in the micron range, as implied by amended independent claims 1, 19 and 38.

It is respectfully submitted that all of the Examiner's rejections have been traversed. Accordingly, it is submitted that the present application is in condition for allowance and reconsideration of the present application is respectfully requested.

Very respectfully,

Applicant:



Kia Silverbrook

C/o: Silverbrook Research Pty Ltd
393 Darling Street
Balmain NSW 2041, Australia

Email: kia.silverbrook@silverbrookresearch.com

Telephone: +612 9818 6633

Facsimile: +61 2 9555 7762